

though the cure is not as rapidly effected as it may be with chrysarobin or with pyrogallic acid.

It is said to be more serviceable in lupus than any other remedy, but it has not proved successful in the hands of some practitioners.

Ten per cent. of aristol in lanolin, or in other suitable medium, is the proper strength. With this remedy we may be able to avoid the well-known inconveniences which accompany the use of the applications at present most employed.—*Berliner klinische Wochenschrift*, No. 11, 1880.

MEDICINE.

UNDER THE CHARGE OF

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REPORT OF AN EPIDEMIC OF INFLUENZA.

ROBERTSON and ELKINS (*British Medical Journal*, February 1, 1890) report the details of an epidemic of influenza occurring at the Royal Asylum, Morningside, Edinburgh, which are of value, as the course of the cases could be carefully followed. 140 individuals were attacked, there being 992 persons in all in the institution. The symptoms may be divided into cerebral, neuro-muscular, alimentary, respiratory, circulatory, and urinary.

Cerebral symptoms.—Frontal headache was one of the most constant symptoms, and was one of the most complained of. Giddiness, light-headedness, or swimming in the head, was nearly always present. Mental depression was also a common feature. Most cases complained of sleeplessness.

Neuro-muscular symptoms.—Pain in the lumbar region was one of the most constant symptoms, and was nearly as distressing as the headache. Next in frequency to the back, the calves and the thighs were affected by the pain. The pains were seldom localized, and were generally darting and shooting in the limbs, and often of a purely neuralgic nature. A feeling of muscular weakness was a characteristic and, the authors consider, the most important symptom of the ailment. It was alluded to by nearly all the patients without suggestion. During convalescence this weakness persisted, and there was sometimes fainting.

Alimentary symptoms.—Appetite was always impaired, and in many cases there was loathing of food and nausea. Vomiting was frequent as an initial symptom, and in some cases continued a day or two. In a small number of cases there was diarrhoea, but oftener constipation. Flatulence was frequent, accompanied by severe colicky pain. In some cases there was pain and tenderness on pressure in the region of the liver.

Respiratory symptoms.—Cold in the head was frequent but not invariable, and the discharge was slight and watery, and lasted but a few hours. Sneez-

ing was rare. The conjunctivæ were suffused in many cases, often with slight lachrymation. In some instances these symptoms were more severe. There were often slight transitory hoarseness and sore throat. Over three-fourths of the cases suffered from dry cough, often troublesome, and sometimes persisting well on into convalescence. Pain in the chest was sometimes complained of, and examination of the chest in these cases always revealed sparse, dry râles, and in some instances moist râles at the bases. Several of these cases passed into bronchitis, pneumonia, and/pleurisy, and all the fatal ones were due to chest complications.

Circulatory symptoms.—The pulse revealed nothing characteristic. Dry pericarditis was a not infrequent and a serious complication. The skin of the face and trunk often had a reddish flush when the temperature was high. The face sometimes had a dusky, congested appearance. No characteristic eruption was observed. Herpes labialis was present in a few cases. The patients complained greatly of waves of heat and cold passing over the body, accompanied by periodic, copious perspirations. This latter symptom was more marked than in ordinary febrile states, and persisted after the temperature had reached normal.

Urinary symptoms.—Observations on the urine were imperfect, but in two cases there was acute catarrhal nephritis.

The temperature was an important guide, and was always above 100° in typical cases. In the absence of complications it was always higher on the first evening than subsequently. In the great majority of cases the fever ranged between 100° and 102°.

The duration of typical cases was from two to five days. The symptoms almost invariably much abated after the first day. Rheumatic pains in some parts of the body sometimes persisted for a few days or a week. Anæmia to a greater or less extent was always present after the illness was past, and there was always loss of weight, and the appetite remained very poor.

Relapses were witnessed in 9.2 per cent. of the cases. As a general rule, the second attack was more serious than the first, and headache and fever always recurred. The majority of cases of relapse had a severe pulmonary attack (bronchitis or pleurisy), and in nearly half diarrhœa occurred. In all relapsed cases there had been distinct exposure to air, as by going out too soon. The period elapsing between the two attacks was very short.

The most frequent complication, and one which occurred in all fatal cases, was a species of pneumonia. It was present in 14 cases. It usually attacked both bases; was not of the pure croupous variety; was always preceded by bronchitis, and seemed to be rather a spread of the inflammatory process to the terminal tubules of the bronchi, and finally to the alveoli. The sputum, although fibrinous, was frothy and occasionally streaked with blood, but never rusty-colored. Bronchitis was a common complication. Pleurisy was seen in several cases, and pericarditis was found in 5 of the 10 fatal cases.

Although 10 patients died, no conclusions can be drawn from this fact, as all of the ten were subjects previously debilitated.

The first persons attacked were those who were much in the open air. The authors believe the disease to be a specific fever, but they are in doubt about its contagiousness, and think that if this exists it is only to a very

slight degree. In no case was there only a single system of the body affected.

The treatment was symptomatic. Light diet, antipyrine, salicylic acid, or quinine, enemata rather than laxatives for constipation, as it was found that diarrhoea was easily produced by even the mildest of the latter; expectorants when indicated, hypnotics for insomnia, and tonics during convalescence.

SYMPTOMS OF PERNICIOUS ANÆMIA DUE TO OSTEOMYELITIS.

KNOTT (*British Medical Journal*, 1890, i. 232) reports the case of a seaman, aged thirty-two years, who had suffered on different occasions with pleurisy, remittent fever, and purpura. For three or four weeks he had been losing flesh and strength, and complained of vague pains above the chest, epigastrium, and loins. He looked anxious and ill and was put to bed, although examination revealed nothing wrong except tenderness in the epigastric and hepatic regions, and weak respiratory murmur on the right side. There was marked thickening of the sternal half of the right clavicle, which the patient attributed to a fall from a horse three years previously. After three days he began to lose appetite and vomit food, and to complain of some lumbar pain, and of increase of pain in the chest and back on deep inspiration. The epigastric and hepatic tenderness was greater; there was no jaundice. Four days later vomiting was almost incessant. There was no tenderness in any of the bones; the bowels were obstinately constipated; there was no fever; emaciation was rapidly going on. He continued to lose ground steadily, and became very weak and thin. There was much tenderness about the chest-walls, and for a few days some slight swelling over the sternum, which afterward disappeared. He then had several attacks of epistaxis. Three weeks later he looked like a man dying of pernicious anæmia. Everything he tried to eat caused disgust or nausea. The temperature one night was 100° F.—at other times normal or subnormal. He died of exhaustion on the forty-fourth day.

At the autopsy the body was found much emaciated and of a white, waxy color; the viscera pale, an old cicatrized ulcer in the stomach, and pink serum in the bloodvessels. The cancellous tissue of the ribs and sternum, clavicles and femora was found to have broken down and become transformed into a pink creamy matter. Many of the ribs were quite soft. The periosteum was healthy.

The author says that no suspicion of the osteomyelitis was entertained during life, and that it was discovered quite accidentally at the autopsy. He believes that this was the initial disease, and that the anæmia was the result of it, and says that if this view is correct it would strengthen the theory that the red cells of the blood are formed originally, or in some way matured in the marrow and cancellous tissue of bones.

ABSCESS OF THE LIVER IN TYPHOID FEVER.

E. ROMBERG (*Berlin. klin. Wochenschr.*, 1890, 192) calls attention to the rarity with which abscess of the liver occurs in typhoid fever; as shown by the fact that the different text-books of medicine and monographs on the disease rarely even refer to it. It may be due to one of three causes:

1. Typhoid ulceration of the bile-ducts, and suppuration spreading from this.

2. A purulent pyelephlebitis following the intestinal affection.

3. A pyæmic infection, starting from some other part of the body.

There is only one example of the first category reported; this being a case recorded by Klebs. In this the branches of the hepatic duct soon after passing into the liver became large and, for the most part, cylindrical cavities.

A large number of the reported cases belong to the second class. The author details a case of this nature. This occurred in a man of thirty-four years, who, in the course of the second week, suffered repeated intestinal hemorrhages, indicating an extreme degree of intestinal alteration. A few days later the fever assumed an atypical course with irregular remissions, and the general condition was bad. It is probable that at this period the suppuration in the mesentery began, and was spreading and attacking the branches of the portal vein and causing their thrombosis. The first chill occurred on the twenty-fourth day of the disease, and probably indicated the formation of the first of the series of embolisms in the liver. After this there developed the characteristic symptoms of metastatic liver abscess, with irregular fever, chills, intense icterus, progressive enlargement of the liver with tenderness on pressure. The course of the suppurative process in this case was very rapid, only eight days elapsing from the time of the first chill until death occurred. The autopsy revealed numerous ulcers in the part of the ileum joining the cæcum, with suppuration in the mesentery of this portion, and thrombosis of the ileo-colic veins leading from it. The liver was much enlarged, and contained wide-spread thrombosis of the branches of the portal vein and numerous small abscesses. Staphylococci were found in both the thrombi and the abscesses. Two similar cases are found in medical literature, as well as two other cases in which the result of the autopsy alone is given. The author gives a brief account of these.

The third category differs considerably in the various seats of the original source of suppuration from which the pyæmic infection of the liver arose. The author gives brief abstracts of all these cases. In one of them (Louis') the source appeared to be an abscess in the parotid gland. In another (Chvostek's) a *perichondritis laryngea* was the source of infection. Freundlich saw an instance in which the cause was an abscess of the fourth finger and of the elbow, and a similar case is reported by Dunin in which it was a thenar abscess.

In the remaining instances of liver abscess in typhoid fever it is not clear to which of the classes the cases should be assigned.

The author has been able to collect from medical literature 19 cases of the affection, including his own. The number is too small to permit of conclusions as to the conditions which favor the occurrence of this complication.

THE OCCURRENCE OF TYPHOID BACILLI IN THE URINE.

NEUMANN (*Munch. med. Wochenschr.*, 1890, 68) has endeavored to devise a method of clinically diagnosing typhoid fever in cases in which the disease is difficult of recognition. For this purpose he has examined the urine bacteriologically in forty-eight cases. Thorough disinfection of the external geni-

tals was made, and the urine then drawn with a catheter previously sterilized by heat. Eight times he found typhoid bacilli abundant, and three times scattered in the urine. Since normal urine is free from microbes, he considers that the presence of motile bacilli in the urine of a suspected case is an observation of great diagnostic value. A positive diagnosis can, of course, only be made by the completed bacteriological tests.

At the time at which the lenticular spots appear in the skin, foci of typhoid bacilli are deposited in the kidneys. Should any of these include in the infected area a uriniferous tubule, the possibility of the passage of the microorganisms into the urine is provided. In the bladder the bacilli find very favorable conditions for their growth, and they multiply there very rapidly. It is an important fact that the bacilli are still present in the urine during the time of convalescence, and Neumann has found them up to even the twenty-third day.

THE ETIOLOGY OF ASIATIC CHOLERA.

HUEPPE (*Berlin. Klin. Wochenschrift*, 1890, 189) concludes, from his studies and from those of Wood, of Edinburgh, upon the nature of cholera, that it is a process limited to the intestine; it is biologically a specific intestinal putrefaction with the production of a specific toxin. The loss of water and the denudation of the intestinal mucous membrane of its epithelium, though important symptomatically, are without etiological relation to the disease. As far as experiments yet indicate, the cholera bacteria, whether entering the system in a moist or dry condition, and whether inhaled or swallowed, always reach the intestine by way of the stomach. It has been found that with a proper selection of nourishment, but without the presence of oxygen, the cholera bacteria produce their poison more energetically and more quickly than under the ordinary conditions of culture in the presence of air. This is in accord with the fact that the cholera process is carried on in man under the conditions of anaërobiosis. Wood has shown conclusively that bacteria in a state of anaërobiosis are much more sensitive to external conditions than when in a condition of aërobiosis. The cholera bacteria, therefore, though very energetically producing toxin in the intestine, are much more sensitive to external agents, so that traces of acid are sufficient for their destruction. They are more easily destroyed in the fresh stool than at any other time. From a clinical standpoint, therefore, it is important to disinfect the stools and the linen at once, since with delay the resistance of the microorganisms increases. A therapeutic indication depending on the facts brought forward is to administer by the mouth some substance which may pass the stomach unchanged, and in the intestine act upon the bacteria. For this purpose salol appears to be best fitted, in the effort to exert an internal and perhaps specific action against the disease.

These observations account for the hitherto puzzling fact that cholera only seldom is contagious, transmitted directly from the sick to the well. The bacteria are in such a susceptible condition on leaving the bowel, that even if they at once find their way into the stomach of a healthy person, they will almost certainly be destroyed by the gastric juice. In a short time, however, the anaërobic cholera bacteria outside of the body, in the presence of air and supplied with proper nourishment, become aërobic.

It is also true that the cholera bacteria in the anaërobic condition are much more particular in the choice of their nourishment than when aerobic; and this constitutes another ground for their increased power of resistance outside of the body. The author also maintains that there is a third form—the arthrospores—which is even more resistant than the vegetative aerobic form. In any case, should any of the forms whose power of resistance has been increased enter the stomach, it would seem that they are not destroyed there, even by the presence of acid, but pass into the intestine, and there complete the *circulus vitiosus*.

Pettenkofer has, with reason, made prominent the epidemiological observation that, as a rule, the cholera infection is indirect, being influenced by external conditions; the principal of these conditions being the variations in the ground-water. With the diminution of the ground-water—i. e., with the diminution in the degree of dampness in the upper layers of the ground, the danger of cholera increases; while with the increase of dampness in the upper layers the danger decreases. The proper explanation of this would appear to be that the cholera germ enters the ground in its most sensitive and least resistant condition. If too much moisture—i. e., too little air and atmospheric oxygen—is present they simply perish. If the ground is only damp, so that air can reach them, as aerobic they increase at the expense of the nutrient matter present. If now, with these viable cholera germs in the ground, the ground-water diminishes, the conditions are those most favorable to aerobic life, and the cholera germs increase. The preliminary conditions are thus fulfilled for a miasmatic spread of a cholera epidemic. If, on the other hand, while an epidemic is in progress the ground-water increases in amount, the bacteria can no longer increase, and are either destroyed or rendered inactive, and the epidemic ceases for want of suitable infectious material. Of course, these bacteriological facts are not the only epidemiological factors; but the conclusion seems justifiable that Asiatic cholera is truly a miasmatic-contagious disease, with epidemiologically marked prominence of the dependence upon external circumstances, the nature of which bacteriologically has now become clearer.

SEVERE CHOREA ENDING FATALLY FROM ACUTE PARALYTIC
DISTENTION OF THE STOMACH.

H. M. BROWN (*Lancet*, 1890, i. 848) reports the case of a girl of sixteen years who had had acute rheumatism, and some weeks later developed chorea, attributed to anxiety about domestic matters. She was found to be suffering from severe chorea, affecting the whole body. She was emotional, crying without apparent cause, but had no delusions. There was a loud systolic murmur at the apex. The temperature was elevated and continued so, and the patient had the general appearance of a case of typhoid fever. The pulse became weak and rapid; insomnia was persistent in spite of treatment; there were great excitement and delirium. After about the eighth day the patient's condition improved somewhat, and later the delirium and chorea disappeared. Vomiting and diarrhœa, however, set in, and the abdomen became distended. On the thirteenth day of observation she went

into a collapsed condition, with greatly distended abdomen, and died. There had been no vomiting, and no urine had been passed for twenty-four hours.

Autopsy showed an enormously dilated stomach, forming a huge cystic tumor occupying the entire abdominal cavity, and extending from the diaphragm on the left side to the right iliac fossa. The contents consisted of a greenish-brown fluid containing a large quantity of acid hæmatin. The wall of the stomach was greatly thinned.

The author remarks on the great rarity of acute paralytic distention of the stomach. It is a condition causing death in a few hours with symptoms of profound shock. Two cases of this kind are described by Fagge, and presented almost identical symptoms with the case now recorded—i. e., profound collapse, with great abdominal distention and suppression of urine, preceded by severe vomiting.

WHOOPING-COUGH TREATED WITH TERPINE HYDRATE.

MANASSE (*Therap. Monatshefte*, 1890, 116) gives some account of the constitution of terpine hydrate and of the uses for which it has been recommended, and then reports his own experience with it in the treatment of whooping-cough, having tried it in 41 cases with excellent results. In children less than one year old it may be given in dose of 22 grains per day without any deleterious effects. A careful history of each case was kept, the number of paroxysms being noted daily. In the great majority of cases 22 to 45 grains daily were sufficient in the course of four to five days greatly to reduce the number, or, at any rate, the severity of the attacks; and to hasten the recovery from the attending bronchitis.

In endeavoring to explain the method of its action, he discards at once the former view, that pertussis is in any sense a neurosis of the pneumogastric or phrenic, accepting the theory that the disease is of mycotic origin. As terpine hydrate has been shown by Colpi to possess quite powerful antiseptic properties, we might assume that the value of the drug depended upon its action upon the germs of pertussis. The author is, however, of the opinion that little is ever to be gained by the attempt to cure any infectious disease by attacking the germs themselves, since these bodies are much less apt to be injured by drugs than are the tissues of the human organism. In pertussis we have an inflammatory and catarrhal condition of the respiratory mucous membrane, which, in the severe cases, may increase to a grave condition, blocking the capillary bronchi with mucus and cellular masses, and producing alveolar collapse, lobular hyperæmia, degeneration of the terminal bronchioles, and death. Terpine hydrate does good by causing a contraction in the bloodvessels, and thus producing an anæmia of the respiratory mucous membrane with diminution of its swelling and increase of the secretion.

ALBUMINURIA AND LIFE ASSURANCE.

Until recently, says FRASER (*Lancet*, 1890, i. 846), it has been assumed that the presence of albumin in the urine was in itself sufficient reason for the rejection of the candidate for insurance. A number of observations, however, have been recorded in the last few years which show that albuminuria may occur in persons who do not exhibit any of the general symptoms of

Bright's disease; while, conversely, Bright's disease may exist without constant albuminuria. The presence of albumin in the urine without any recognizable indication of disordered health is the condition in which the greatest difficulty for the examiner presents itself, especially since the shortness of the time in which these cases have been studied renders it as yet impossible to know what proportion, if any of them, afterward develop unmistakable symptoms of structural disease of the kidneys. Many of the persons in whom it occurs are of youthful age; many suffer from indigestion; the quantity is usually small, is not constantly present, and often appears only after fatigue of body or mind.

The author claims that many of the newer and more delicate tests for albumin are liable to give erroneous results. He, therefore, considers that it would be of advantage if one system of testing were always used for life insurance examination, and he would recommend the invariable adoption by medical officers of the well-known test of boiling a small quantity of urine in a test-tube, then adding a drop or two of concentrated nitric acid, and again boiling. On the understanding that the above condition is fulfilled, for the purpose of arriving at a decision with regard to the eligibility of a candidate for assurance, three groups of cases may be adopted:

A. *Those in which the urine contains a large, or fairly large, quantity of albumin.*—If the precipitated albumin exceed one-eighth of the urine after standing twenty-four hours, the proposal should be rejected, unless there exist some temporary disease of the bladder or urethra, in which case the decision may be deferred.

B. *Those in which the urine contains a smaller amount than one-eighth of albumin.*—The proposal should be rejected if there be: (1) Enlargement of the heart; (2) increase of arterial tension; (3) increase in the quantity of urine, to the extent of more than fifty ounces in the twenty-four hours; (4) a specific gravity of the twenty-four hours' urine of less than 1010; (5) a sediment containing epithelial, granular, or fatty casts; (6) with increased quantity of urine and lower specific gravity, a sediment containing hyaline tube-casts; (7) dropsy or a history of dropsy within the last two years; (8) a history of lead-poisoning, or the existence of conditions rendering this form of poisoning probable; (9) a history of scarlet fever after twelve years of age; (10) evidence of gout or syphilis, or a history of these diseases.

C. *Those cases in which the urine contains a small quantity of albumin, unassociated with any evidence of important disorder in health.*—In these cases, the conditions stated under B having been excluded, it seems prudent to adopt the following course: A sample of the twenty-four hours' urine should be re-examined on two or three consecutive days. If no albumin be found on any of these subsequent examinations, the proposal might be accepted at ordinary rates. If, on the other hand, albumin is discovered on any of these subsequent examinations, the proposal should be deferred for six months, when an examination on the above plan should again be made.